

WHAT IS CLAIMED IS:

1. An ink-jet head comprising:

5 a passage portion in which a plurality of ink ejecting nozzles are formed, the passage portion including a plurality of individual ink passages running to the nozzles through pressure chambers,

a spaced portion spaced apart from and opposite to the passage portion,

10 a driving portion, bonded to a surface of the spaced portion facing the passage portion, for imparting squirting energy to ink in the pressure chambers,

a power supply member electrically connected with the driving portion, for supplying driving signals to the driving  
15 portion,

a protrusion provided in at least either of the surface of the spaced portion facing the passage portion and the surface of the passage portion facing the spaced portion, and

a sealing member disposed adjacent to the protrusion, for  
20 sealing a space between the passage portion and the spaced portion.

2. The ink-jet head according to Claim 1, further comprising a bonded portion bonded to the passage portion while supporting the spaced portion to maintain a distance between the spaced  
25 portion and the passage portion,

wherein the protrusion is provided opposite to the bonded portion with respect to the driving portion.

3. The ink-jet head according to Claim 1, wherein the protrusion is provided in the spaced portion.

5 4. The ink-jet head according to Claim 3, wherein the protrusion is opposite to the passage portion and has such a height that its front end is positioned at a level beyond a level of the opposite surface of the driving portion to the spaced portion.

10 5. The ink-jet head according to Claim 3, wherein the protrusion is not opposite to the passage portion and has such a height that its front end is positioned at a level beyond a level of the opposite surface of the passage portion to the spaced portion.

15 6. The ink-jet head according to Claim 3, wherein the power supply member is in abutment with at least either of the protrusion and the passage portion.

7. The ink-jet head according to Claim 3,  
wherein the power supply member is in abutment with both  
20 of the protrusion and the passage portion.

8. The ink-jet head according to Claim 1,  
wherein the plurality of pressure chambers are arrayed in matrix along a bonded surface bonded to the driving portion,  
wherein the driving portion has piezoelectric sheets  
25 extending across the plurality of pressure chambers and a

plurality of individual electrodes arranged on the piezoelectric sheets to be opposite to the respective pressure chambers and is bonded to the passage portion, and

wherein the power supply member supplies driving signals to the respective individual electrodes of the driving portion.

9. The ink-jet head according to Claim 1, wherein a whole area of the driving portion is opposite to the spaced portion.

10. The ink-jet head according to Claim 1, wherein the spaced portion includes an ink reservoir in which ink is stored and from which the stored ink is fed to the individual ink passages of the passage portion.

11. An ink-jet head comprising:

a passage unit in which a plurality of ink ejecting nozzles are formed, the passage unit including a plurality of individual ink passages running to the nozzles through pressure chambers,

a reservoir unit including an ink reservoir in which ink is stored and from which the stored ink is fed to the passage unit,

an actuator unit, bonded to the passage unit, for imparting squirting energy to the ink in the pressure chambers, and

a power supply member electrically connected with the actuator unit, for supplying driving signals to the actuator unit,

wherein the reservoir unit has a bonded surface bonded to the passage unit and a spaced surface extended across and spaced

apart from the actuator unit,

wherein a protrusion is provided in an area of the spaced surface of the reservoir unit, the area is opposite to the bonded surface with respect to an area facing the actuator unit, and

5        wherein the power supply member is in abutment with both of the protrusion and the passage unit, and a sealing member for sealing a space between the passage unit and the reservoir unit is disposed at the abutment portion.

12.    The ink-jet head according to Claim 11, wherein a width  
10    of the passage unit is not more than a width of the reservoir unit.

13.    A producing method of an ink-jet head comprising:

the step of producing a passage unit in which a plurality of ink ejecting nozzles are formed, the passage unit including  
15    a plurality of individual ink passages running to the nozzles through pressure chambers,

the step of producing a protruding member having a first protrusion and a second protrusion protruding in the same direction as the direction in which the first protrusion  
20    protrudes by a half-etching,

the step of producing an actuator unit for imparting squirting energy to the ink in the pressure chambers,

the step of bonding the actuator unit to the passage unit,

the step of electrically connecting between a power supply  
25    member for supplying driving signals to the actuator unit and

the actuator unit,

the step of bonding together the passage unit and the protrusion member in such a manner that a front end of the first protrusion serves as a bonded surface bonded to the passage unit; that the protrusion member has a spaced surface spaced  
5 apart from and extended across the actuator unit and that a second protrusion is located in an area which is spaced apart from the bonded surface across an opposite area of the spaced surface to the actuator unit and is not opposite to the actuator  
10 unit, and

the step of disposing a sealing member for sealing a space between the passage unit and the protrusion member at an abutment portion between the power supply member and the protrusion.